

WHAT IS CLAIMED IS:

1. An electric motor-operated vehicle comprising:

a plurality of wheels, wherein at least one of the plurality of wheels is a front wheel and at least one of the plurality of wheels is a rear wheel;

a vehicle body defining a vehicle width extending along a transverse axis between a left side and a right side of said vehicle, and defining a vehicle length extending along a longitudinal axis between a front end and a rear end of said vehicle body;

a seat connected to the vehicle body;

a plurality of main frame rails disposed along the longitudinal axis of said vehicle body;

a loading platform receiving frame connected to said plurality of main frame rails, the platform receiving frame comprising a right and a left side rail;

a loading platform connected to said loading platform receiving frame, said loading platform disposed rearward of said seat above said rear wheel and configured to receive at least one object;

an electric motor configured to drive the vehicle;

at least one battery configured to supply power to said electric motor;

a fuel cell configured to charge said at least one battery;

at least one fuel tank configured to supply fuel to said fuel cell, said at least one fuel tank having a front end and a rear end defining a longitudinal axis extending between said front end and said rear end; and

an electric motor control unit configured to control the operation of said electric motor,

wherein said at least one fuel tank is disposed centrally along said vehicle width, and said fuel cell is disposed between said front end of said at least one fuel tank and said front end of said vehicle body, said fuel cell further disposed beneath said seat.

2. The vehicle of Claim 1 further comprising at least one air intake opening formed on said vehicle body between said at least one battery and said front end of said vehicle body, wherein said at least one battery is disposed between said at least one fuel tank and one of said left and right side rails of said loading platform receiving frame, and wherein said at least one air intake opening is configured to receive at least part of an

amount of air caused to flow rearward by a propulsion of said vehicle to cool said at least one battery.

3. The vehicle of Claim 1 further comprising an air intake opening formed on the vehicle body frontward of said fuel cell, wherein said air intake opening is configured to receive at least part of an amount of air caused to flow rearward by a propulsion of said vehicle to cool said fuel cell.

4. The vehicle of Claim 3, further comprising a fuel cell holder, the fuel cell holder comprising:

at least one lateral end; and

an opening defined by said at least one lateral end,

wherein said fuel cell is removably disposed in said holder and wherein said opening is configured to receive at least part of an amount of air caused to flow rearward by a propulsion of said vehicle to cool said fuel cell.

5. The vehicle of Claim 4, wherein the at least one lateral end faces generally perpendicular to said longitudinal axis of said vehicle body.

6. The vehicle of Claim 4 further comprising:

a partition wall having a vent opening on said wall, said partition wall disposed between said fuel cell and said at least one fuel tank; and

a fan configured to cool said fuel cell,

wherein said fan is configured to draw cooling air into said fuel cell holder and wherein said vent opening is configured to vent said cooling air rearward of said fuel cell.

7. The vehicle of Claim 4, wherein air flows through a filter disposed at said at least one lateral end of said fuel cell holder.

8. The vehicle of Claim 6, wherein said partition further comprises a movable cover configured to operate between an open position and a plurality of deflection positions to alter the direction of fluid flow through said vent opening, said cover further configured to move in response to a force.

9. The vehicle of Claim 1, wherein said electric motor controller is disposed rearward of said at least one fuel tank.

10. A method for cooling a fuel cell of an electric motor-operated vehicle comprising:

forming an air intake opening on a vehicle body frontward of said fuel cell;  
and

causing at least part of an amount of air caused to flow rearward by a propulsion of said vehicle to flow through said air intake opening.

11. The method of Claim 10 further comprising the step of:

disposing said fuel cell in a fuel cell holder having at least one lateral end;

forming an opening in said at least one lateral end; and

causing at least part of said amount of air caused to flow rearward by said propulsion of said vehicle to flow through said opening in said at least one lateral end.

12. The method of Claim 11 further comprising the step of:

disposing a partition wall having a vent opening rearward of said fuel cell;

disposing a fan proximal to said fuel cell;

operating said fan to draw at least part of said amount of air caused to flow rearward by said propulsion of said vehicle into said fuel cell holder to cool said fuel cell; and

venting said amount of air drawn into said fuel cell holder through said vent opening.

13. A method of cooling at least one battery on an electric motor-operated vehicle comprising:

forming an air intake opening on a vehicle body frontward of said at least one battery; and

causing at least part of an amount of air caused to flow rearward by a propulsion of said vehicle to flow through said air intake opening.